

Rec'd PET/PTO 07 MAR 2005

526961

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 March 2004 (18.03.2004)

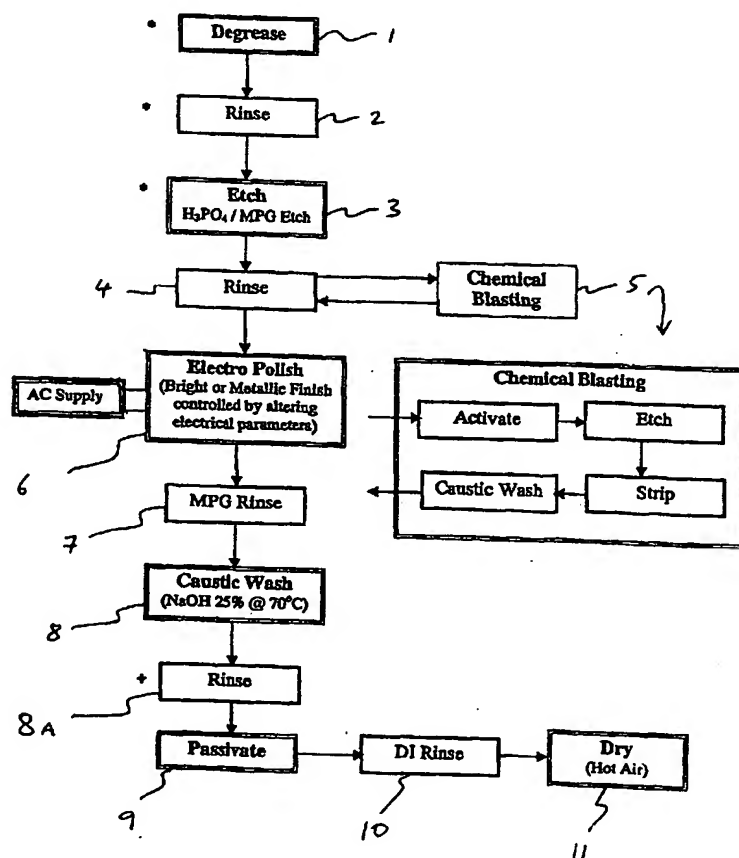
PCT

(10) International Publication Number
WO 2004/022818 A1

- (51) International Patent Classification⁷: C25D 11/30, 11/36, 11/38
- (21) International Application Number: PCT/NZ2003/000200
- (22) International Filing Date: 9 September 2003 (09.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 521269 9 September 2002 (09.09.2002) NZ
- (71) Applicant (for all designated States except US): MAGNESIUM TECHNOLOGY LIMITED [NZ/NZ]; 137 Captain Springs Road, Onehunga, Auckland 1006 (NZ).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MAWSTON, Ian, Grant [NZ/NZ]; 137 Captain Springs Road, Onehunga, Auckland 1006 (NZ). PANOVA, Serguei [RU/NZ]; 137 Captain Springs Road, Onehunga, Auckland 1006 (NZ).
- (74) Agents: WILSON, Kathryn, S. et al.; Level 9, James & Wells Tower, 56 Cawley Street, Private Bag, 11907 Auckland (NZ).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW).

[Continued on next page]

(54) Title: SURFACE TREATMENT OF MAGNESIUM AND ITS ALLOYS



(57) **Abstract:** Methods of polishing and/or brightening surfaces of magnesium or magnesium alloy are disclosed. Polishing and/or brightening methods suitable to both high and low aluminium content magnesium articles (13) are disclosed. In each of the methods, the surface is polished (step 6) and then passivated (step 9). Using the disclosed methods it is possible to control aspects of the appearance of the surface to thereby, for example, obtain a bright and shiny surface to a magnesium or magnesium alloy article (13) which is both stable and corrosion resistant. It is also possible to provide a predetermined texture to the surface using optional steps (step 5).

WO 2004/022818 A1